

What is Claimed Is:

50. A method of decontaminating a contaminated surface, the method comprising:
spraying an electrically charged photosensitizer onto the contaminated surface of a person-
5 occupiable space, in an environment open to the person-occupiable space;
illuminating the sprayed surface with light to cause chemical reactions to decontaminate the surface.

51. The method according to claim 50 wherein the photosensitizer is a solution, and the
step of spraying the photosensitizer onto the contaminated surface comprises electrically charging at
least one component of the solution.

10 52. The method according to claim 50 further comprising controlling the temperature of
the sprayed photosensitizer to enhance the formation rate, mobility, or the decontaminating activity
of the photo-products and their ensuing reactions.

53. The method according to claim 50 wherein the photosensitizer includes hydrogen
peroxide.

15 54. The method according to claim 50 wherein the step of illuminating the sprayed surface
is done with a continuous beam.

55. The method according to claim 54 wherein the step of illuminating the sprayed surface
is done with light having a wave length between about 200 nm and about 320 nm.

56. The method according to claim 50 wherein the photosensitizer includes a surfactant.

20 57. The method according to claim 50 wherein the light includes light of wavelengths
between about 200 nm and about 320 nm.

58. The method according to claim 50 wherein the photosensitizer includes carrier
particles.